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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/833,780 | 04/12/2001 | Dieter H. Nattkemper | 100.168US01 | 3923 |
| 34206 | 7590 | 03/30/2005 | EXAMINER | |
| FOGG AND ASSOCIATES, LLC P.O. BOX 581339 MINNEAPOLIS, MN 55458-1339 | | | FERRIS, DERRICK W | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2663 | |
| DATE MAILED: 03/30/2005 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

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|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 09/833,780 | Applicant(s) NATTKEMPER ET AL. | |
| | Examiner Derrick W. Ferris | Art Unit 2663 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-54 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 9, 11-15, 18, 20-24, 26, 27, 29-33, 35, 36, 38-44, 47, 49, 50 and 53 is/are rejected.
- 7) ☒ Claim(s) 7, 8, 10, 16, 17, 19, 25, 28, 34, 37, 45, 46, 48, 51, 52 and 54 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn. As such, please find a new rejection below with respect to the claimed subject matter since all the previous rejections have been withdrawn.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. **Claims** 1-6,9,11-15,18,20-24,26,27,29-33,35,36,38-40, 42-44,47,49,50, and 53 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. patent 6,041,057 A to *Stone*.

As to **claim 1**, *Stone* teaches a method of automatic permanent virtual circuit connection as a self-configuring ATM network (i.e., a connection-oriented network). In particular, the point-to-point tagged virtual connections are the permanent virtual circuit connection(s). As such, a transit switch 20 teaches the limitation of detecting initiation of communication between a first and a second network element by acting as a first reference point. In particular, an edge switch, such as edge switch 10 in figure 1, is used to forward end-user messages on an established point-to-point tagged virtual connection, see e.g., column 3, lines 43-58. A virtual circuit identifier is taught as a first tagged value. As such, a virtual circuit identifier is received from a first network element such as end user S1 or edge switch 10 and replaced or translated using a second virtual circuit

identifier or second tag value. Thus the transit switch “learns” the first tagged value. An initiation of communication commences when a first tag value is received. Initiation is also taught as a hello request message that is received from a first network element. The tagged values are “learned” from a neighboring switch such as transit switch 30 or 50 such that the neighboring switches act as a second network element. In particular, transit switch 20 sends out a hello request that contains a range of tag values, see e.g., figure 5. The neighboring switches respond by using a hello response such that the switch 20 learns the tag values of the neighboring switches via an acknowledgment (i.e., the switch learns at least one virtual circuit identifier of the second network), see e.g., column 2, lines 49-58 and figure 6. Finally, a translation connection between the first and second network is taught using the mapped tag values, see e.g., column 7, line 60 to column 8, line 36. Hence the limitation(s) are taught by the reference.

As to **claims 2-3**, the virtual circuit identifiers or tag values are validated since they are in the associated forwarding database, see e.g., column 8, line 20-35.

As to **claim 4**, one virtual circuit identifier is identified and monitored through the use of a hello request and response packets (i.e., a switch monitors and identifies these types of packets).

As to **claim 5**, hello request and hello response packets are periodically transmitted, see e.g., column 10, lines 35-56. As such, if a better path is preferred then a different tag value is used for that path thus teaching the limitation.

As to **claim 6**, see similar rejection to claims 2-3.

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As to **claim 9**, see similar rejection to claim 1 where the receiving of a message is the end user message.

As to **claim 11**, see similar rejection to claim 1.

As to **claim 12**, see similar rejection to claim 2.

As to **claim 13**, see similar rejection to claim 3.

As to **claim 14**, see similar rejection to claim 5.

As to **claim 15**, see similar rejection to claim 6.

As to **claim 18**, see similar rejection to claim 1 where the at least one virtual circuit identifier is used as part of the hello request message where the virtual circuit identifier is in the range of values.

As to **claim 20**, see similar rejection to claim 1. A customer premise equipment could be either end user S1 or edge switch 10. A network element could be transmit switch 30 or 50 or edge switch 40 in reference to a first reference point as transit switch 20.

As to **claim 21**, see similar rejection to claim 2 or 3.

As to **claim 22**, see similar rejection to claim 3.

As to **claim 23**, see similar rejection to claim 5.

As to **claim 24**, see similar rejection to claim 6.

As to **claim 26**, end user messages are bi-directional. As such, associate network could be network 44.

As to **claim 27**, see similar rejection to claim 18.

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As to **claim 29**, see similar rejection to claim 1. An ATU-R could be either end user S1 or edge switch 10. An ATU-C could be transmit switch 30 or 50 or edge switch 40 in reference to a first reference point such as transit switch 20. Also note that S4 could also initiate the communication as well.

As to **claim 30**, see similar rejection to claim 2.

As to **claim 31**, see similar rejection to claim 1 where the initial reference point could be transit switch 20.

As to **claim 32**, see similar rejection to claim 5.

As to **claim 33**, see similar rejection to claim 6.

As to **claim 35**, see similar rejection to claim 29.

As to **claim 36**, see similar rejection to claim 9.

As to **claim 38**, see similar rejection to claim 20. In addition, an access network could be ATM network 60.

As to **claim 39**, the network interface is interface 12 as shown in figure 1.

As to **claim 40**, an end user device is subscriber S1 and a remote unit is edge switch 10.

As to **claim 42**, see similar rejection to claim 1.

As to **claim 43**, see similar rejection to claim 4.

As to **claim 44**, see similar rejection to claim 5.

As to **claim 47**, see similar rejection to claim 9.

As to **claim 49**, see similar rejection to claim 1.

As to **claim 50**, see similar rejection to claim 5.

As to **claim 53**, see similar rejection to claim 18.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claim 41** is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 6,041,057 A to *Stone* in view of “Wireline Access Evolution” to *Pickering*.

As such to **claim 41**, *Stone* discloses an access network, ATU-R, and automatic permanent virtual circuit function, see e.g., similar rejection to claim 29.

Stone is silent or deficient to the further limitation of a DSLAM. In particular, *Stone* teaches a general central unit as transit switch 20.

Pickering teaches the further recited limitation above at e.g., in figures 1 and 3 where an exchange/splitter acts as a DSLAM.

The proposed modification of the above-applied reference(s) necessary to arrive at the claimed subject matter would be to modify *Stone* by clarifying that a DSLAM is well known in the art as a central unit.

As such, examiner notes that it would have been obvious to one skilled in the art prior to applicant’s invention to include the above limitation. In particular, the motivation for modifying the reference or to combine the reference teachings would be to use DSL as an access medium thus teaching a DSLAM as a reference point. In particular, *Pickering* cures the above-cited deficiency by providing a motivation found at e.g., in

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figures 1 and 3. Second, there would be a reasonable expectation of success since ATM integrates DSL as taught by *Pickering* (e.g., see top right column on page 2/2) where both references teach ATM. Thus the references either in singular or in combination teach the above claim limitation(s).

Allowable Subject Matter

6. **Claims 7, 8, 10, 16, 17, 19, 25, 28, 34, 37, 45, 46, 48, 51, 52 and 54** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derrick W. Ferris whose telephone number is (571) 272-3123.

The examiner can normally be reached on M-F 9 A.M. - 4:30 P.M. E.S.T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571)272-3139. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Derrick W. Ferris

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